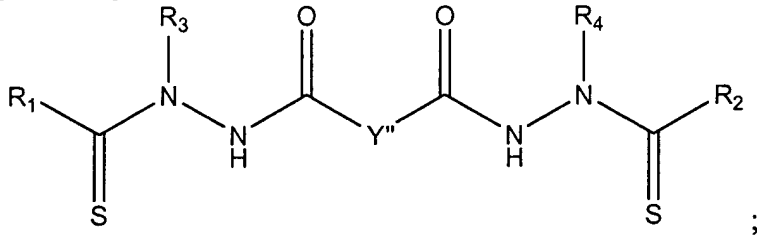
Amendments to the Claims

Please cancel Claims 1-125. Please add new Claims 126-149. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. - 125. (Cancelled)

126. (New) A compound represented by the following structural formula:



;

or a physiologically acceptable salt thereof, wherein:

Y″ is a covalent bond or -CH_2-;

R_1 and R_2 are each a C3-C8 substituted or unsubstituted cyclic aliphatic group; and

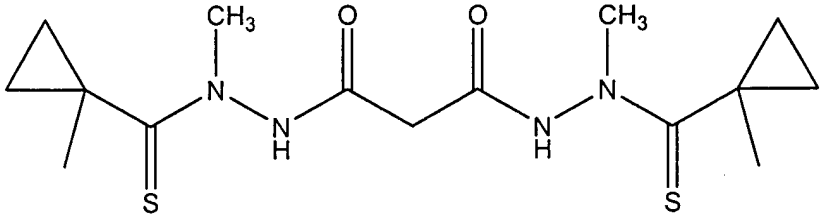
R_3 and R_4 are a substituted or unsubstituted lower alkyl group.

127. (New) The compound of Claim 126 wherein R_1 and R_2 are the same and R_3 and R_4 are the same.

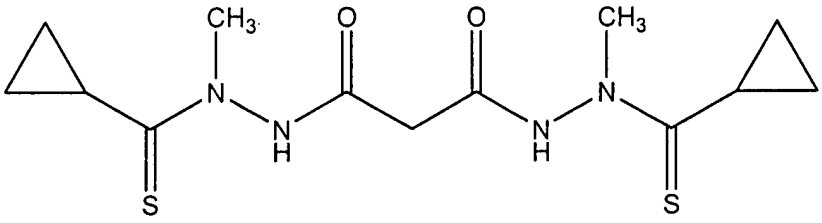
128. (New) The compound of Claim 127 wherein R_3 and R_4 are methyl.

129. (New) The compound of Claim 128 wherein Y″ is –CH_2-.

130. (New) A compound selected from:



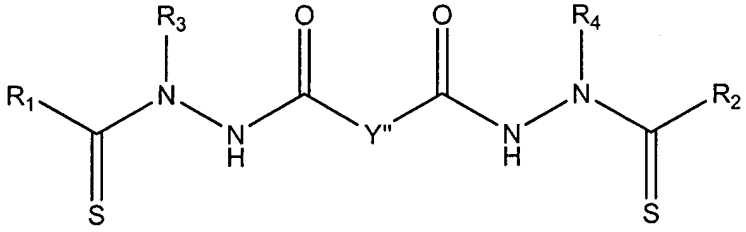
and



;

or a physiologically acceptable salt thereof.

131. (New) A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound represented by the following structural formula:



;

or a physiologically acceptable salt thereof, wherein:

Y" is a covalent bond or $-CH_2-$;

R_1 and R_2 are each a C3-C8 substituted or unsubstituted cyclic aliphatic group; and

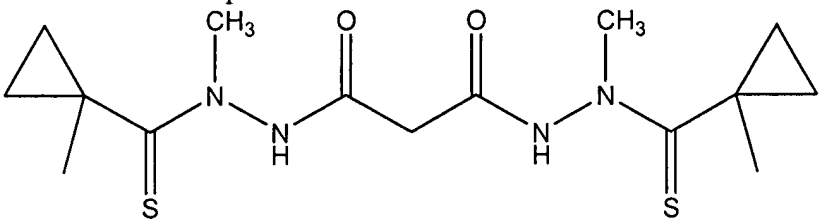
R_3 and R_4 are a substituted or unsubstituted lower alkyl group.

132. (New) The pharmaceutical composition of Claim 131 wherein R_1 and R_2 are the same and R_3 and R_4 are the same.

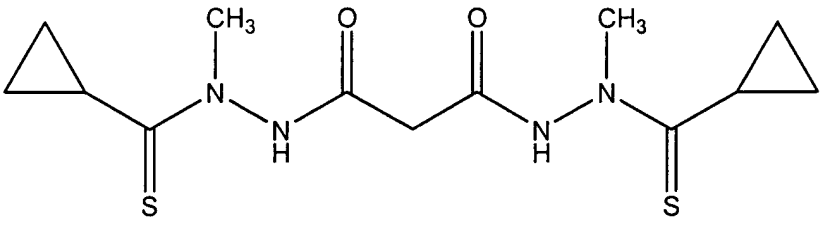
133. (New) The pharmaceutical composition of Claim 132 wherein R_3 and R_4 are methyl.

134. (New) The pharmaceutical composition of Claim 133 wherein Y" is $-CH_2-$.

135. (New) A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound selected from:



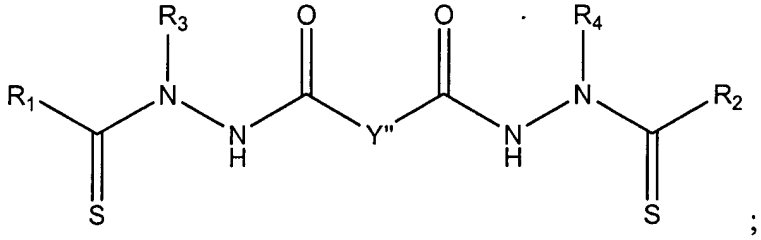
and



;

or a physiologically acceptable salt thereof.

136. (New) A method of treating a subject with cancer, said method comprising administering to the subject an effective amount of taxol or a taxol analog and an effective amount of a compound represented by the following structural formula:



;

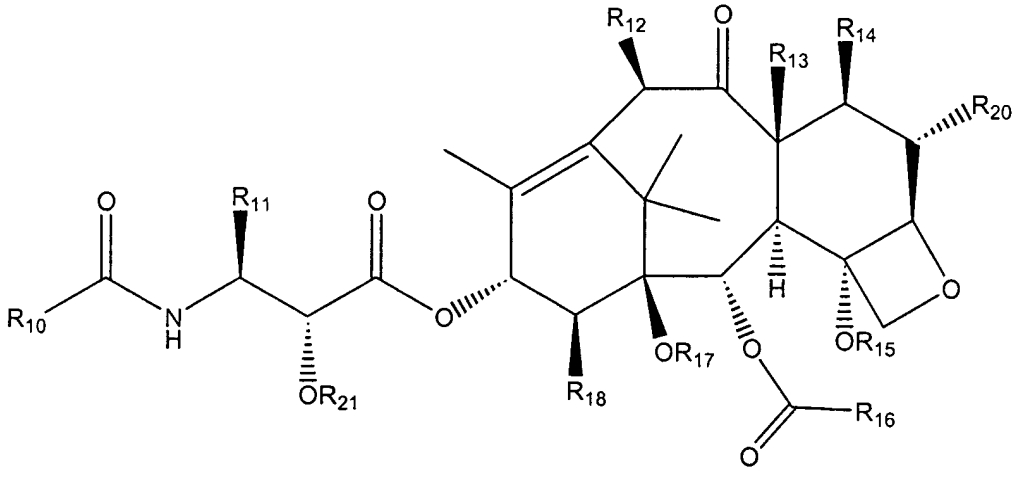
or a physiologically acceptable salt thereof, wherein:

Y" is a covalent bond or $-CH_2-$;

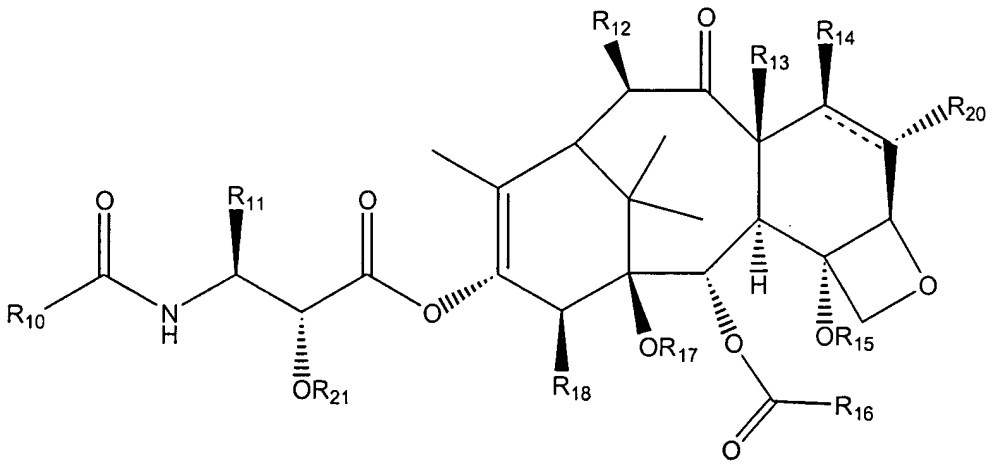
R_1 and R_2 are each a C3-C8 substituted or unsubstituted cyclic aliphatic group; and

R_3 and R_4 are a substituted or unsubstituted lower alkyl group.

137. (New) The method of Claim 136 wherein the taxol analog is represented by a structural formula selected from:



; and



wherein:

R_{10} is a lower alkyl group, a substituted lower alkyl group, a phenyl group, a substituted phenyl group, $-SR_{19}$, $-NHR_{19}$ or $-OR_{19}$;

R_{11} is a lower alkyl group, a substituted lower alkyl group, an aryl group or a substituted aryl group;

R_{12} is -H, -OH, lower alkyl, substituted lower alkyl, lower alkoxy, substituted lower alkoxy, -O-C(O)-(lower alkyl), -O-C(O)-(substituted lower alkyl), $-O-CH_2-O-$(lower alkyl) or $-S-CH_2-O-$(lower alkyl);

R_{13} is -H, $-CH_3$, or, taken together with R_{14}, is $-CH_2-$;

R_{14} is -H, -OH, lower alkoxy, -O-C(O)-(lower alkyl), substituted lower alkoxy, -O-C(O)-(substituted lower alkyl), $-O-CH_2-O-P(O)(OH)_2$, $-O-CH_2-O-$(lower alkyl), $-O-CH_2-S-$(lower alkyl) or, taken together with R_{20}, is a double bond;

R_{15} -H, lower acyl, lower alkyl, substituted lower alkyl, alkoxymethyl, alkthiomethyl, -OC(O)-O(lower alkyl), -OC(O)-O(substituted lower alkyl), -OC(O)-NH(lower alkyl) or -OC(O)-NH(substituted lower alkyl);

R_{16} is phenyl or substituted phenyl;

R_{17} is -H, lower acyl, substituted lower acyl, lower alkyl, substituted, lower alkyl, (lower alkoxy)methyl or (lower alkyl)thiomethyl;

R_{18} -H, $-CH_3$ or, taken together with R_{17} and the carbon atoms to which R_{17} and R_{18} are bonded, is a five or six membered a non-aromatic heterocyclic ring;

R_{19} is a lower alkyl group, a substituted lower alkyl group, a phenyl group, or a substituted phenyl group;

R_{20} is -H or a halogen; and

R_{21} is -H, lower alkyl, substituted lower alkyl, lower acyl or substituted lower acyl.

138. (New) The method of Claim 136 wherein:

R_{10} is phenyl, *tert*-butoxy, -S-CH_2-CH-$(CH_3)_2$, -S-$CH(CH_3)_3$, -S-$(CH_2)_3CH_3$, -O-$CH(CH_3)_3$, -NH-$CH(CH_3)_3$, -CH=$C(CH_3)_2$ or *para*-chlorophenyl;

R_{11} is phenyl, $(CH_3)_2CHCH_2$-, -2-furanyl, cyclopropyl or *para*-toluyl;

R_{12} is -H, -OH, CH_3CO- or -$(CH_2)_2$-*N*-morpholino;

R_{13} is methyl, or, R_{13} and R_{14}, taken together, are -CH_2-;

R_{14} is -H, -CH_2SCH_3 or -CH_2-O-P(O)$(OH)_2$;

R_{15} is CH_3CO-;

R_{16} is phenyl;

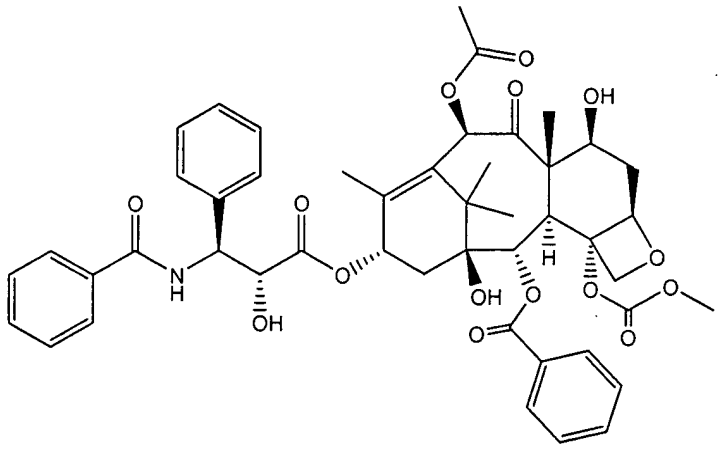
R_{17} -H, or, R_{17} and R_{18}, taken together, are -O-CO-O-;

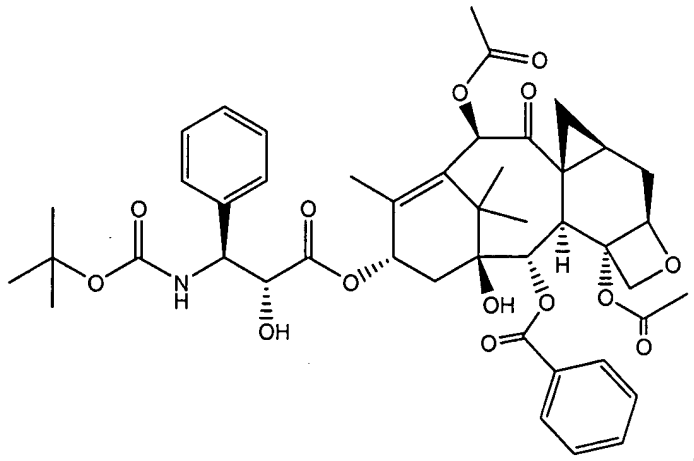
R_{18} is -H;

R_{20} is -H or -F; and

R_{21} is -H, -C(O)-CHBr-$(CH_2)_{13}$-CH_3, -C(O)-$(CH_2)_{14}$-CH_3, -C(O)-CH_2-CH(OH)-COOH, -C(O)-CH_2-O-C(O)-$CH_2CH(NH_2)$-$CONH_2$, -C(O)-CH_2-O-$CH_2CH_2OCH_3$ or -C(O)-O-C(O)-CH_2CH_3.

139. (New) The method of Claim 136 wherein the taxol analog is selected from:





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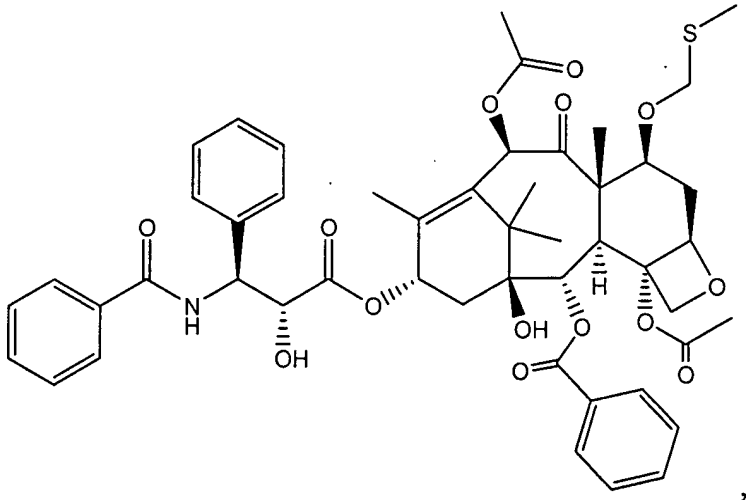

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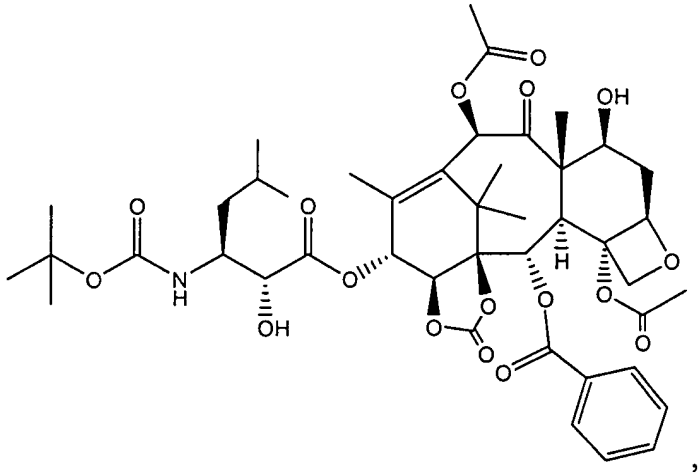

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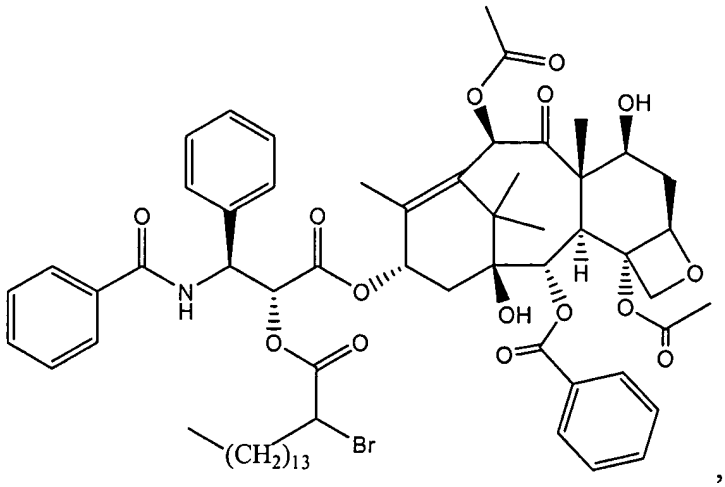
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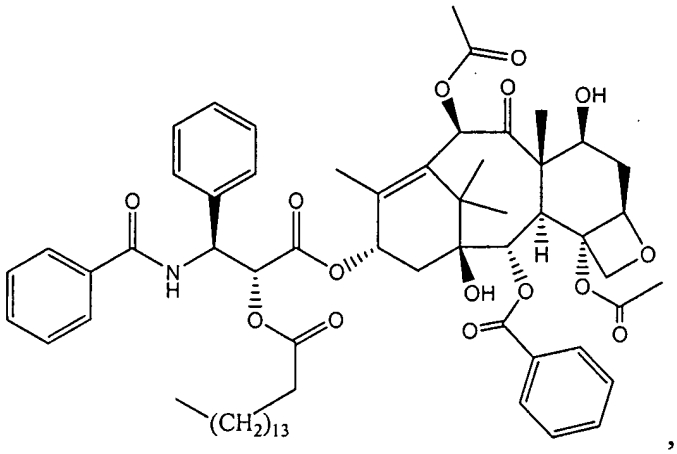
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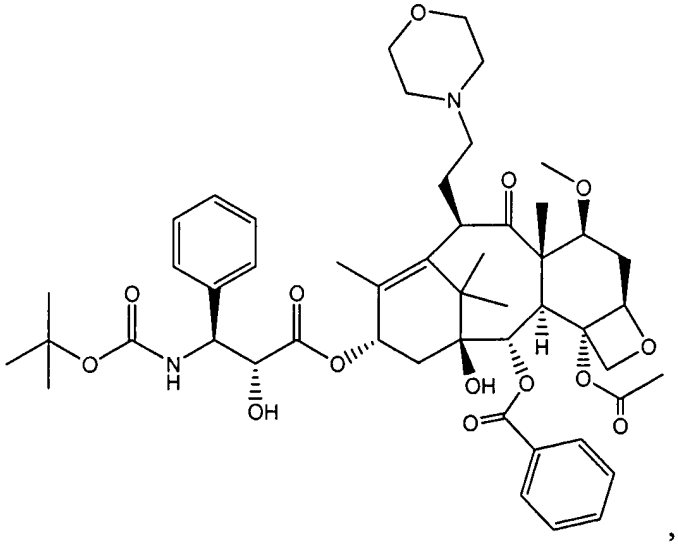
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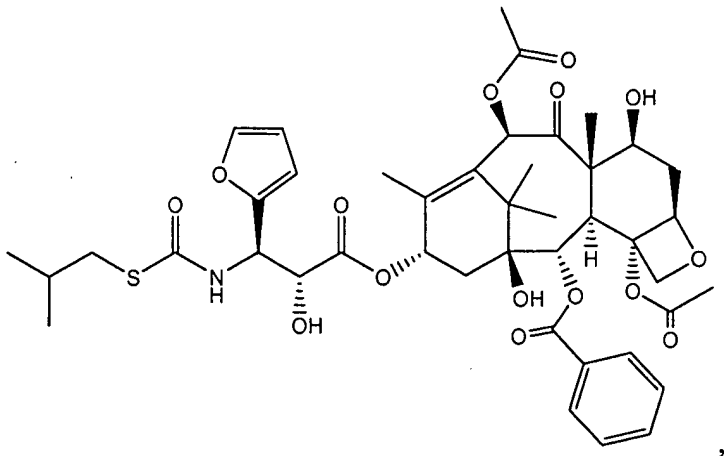

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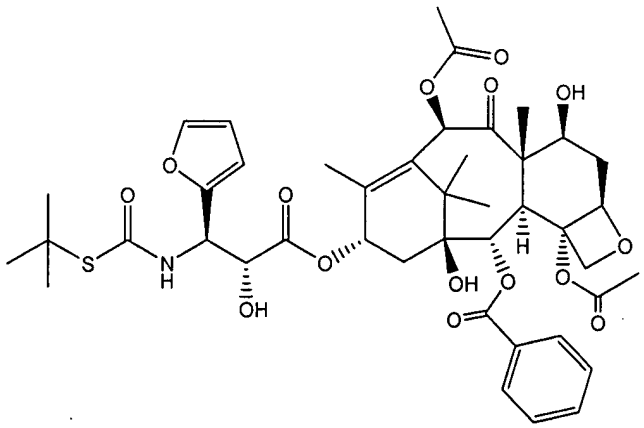

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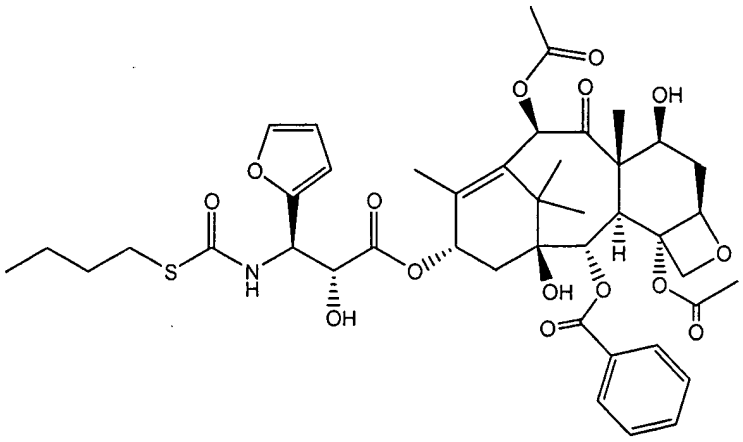

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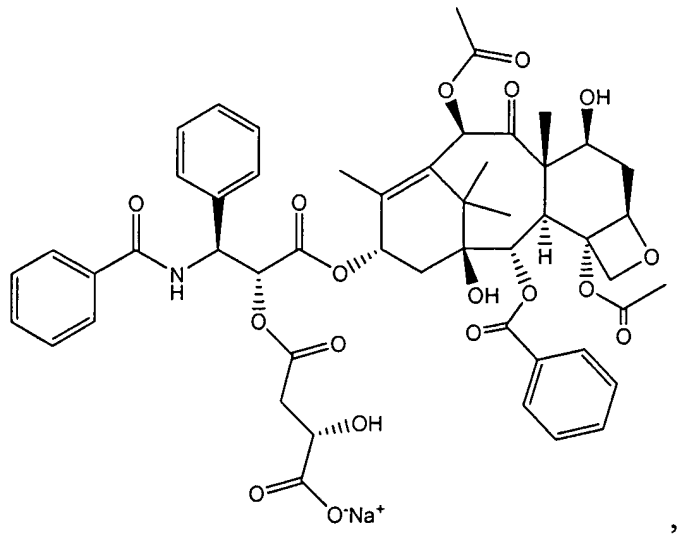

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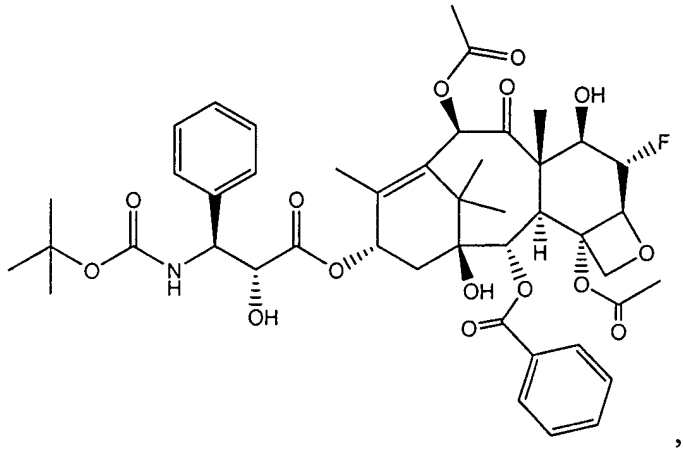

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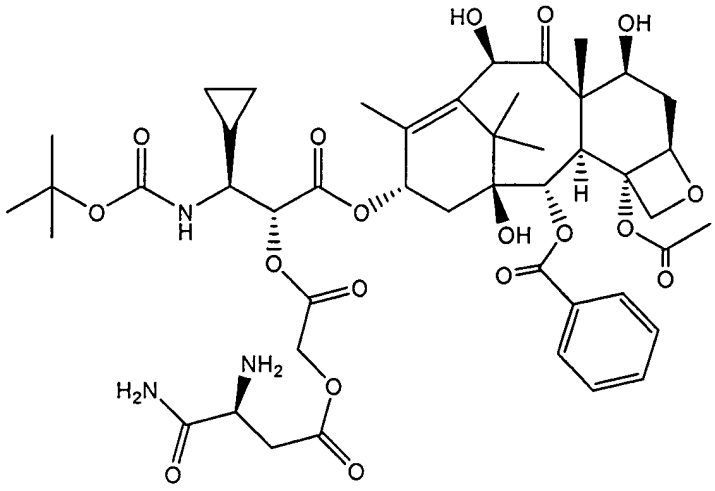

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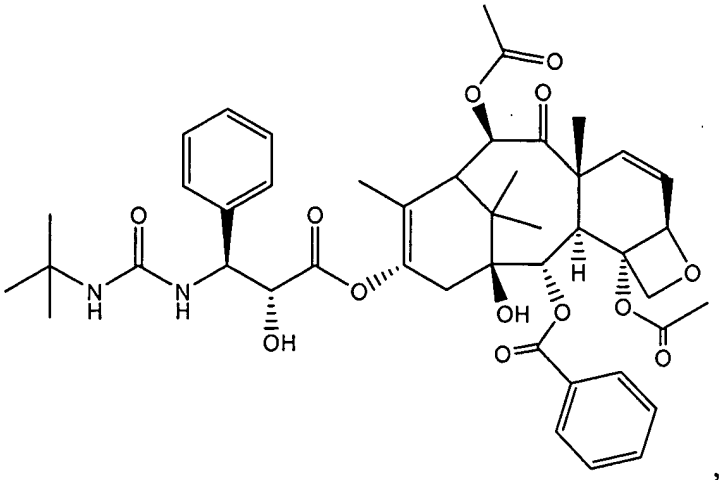

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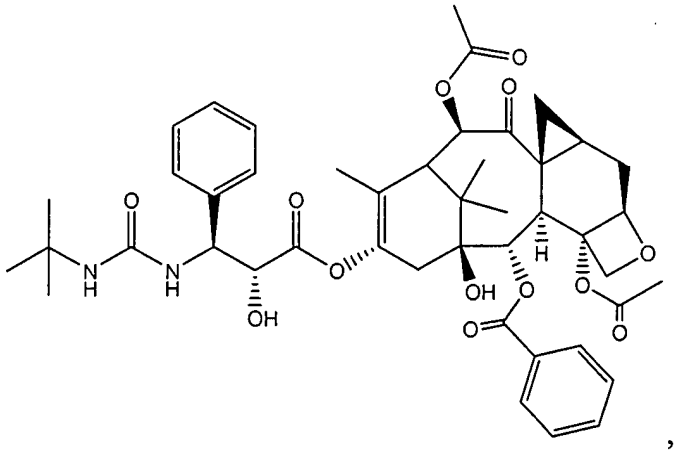

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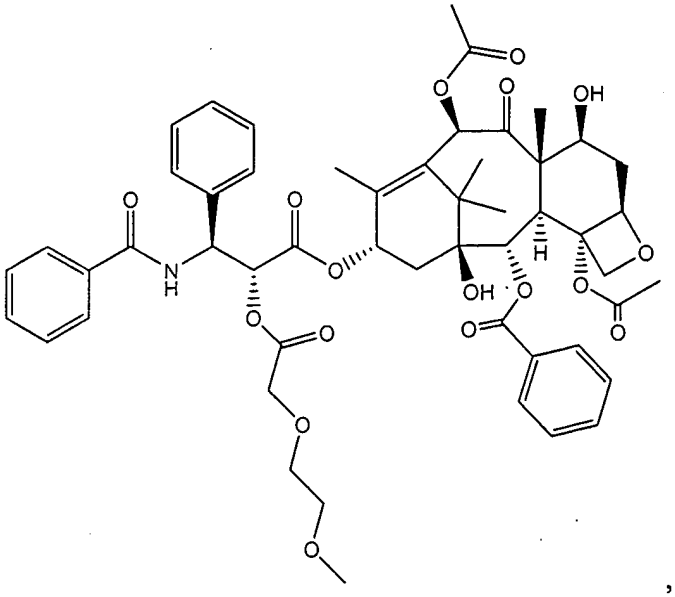

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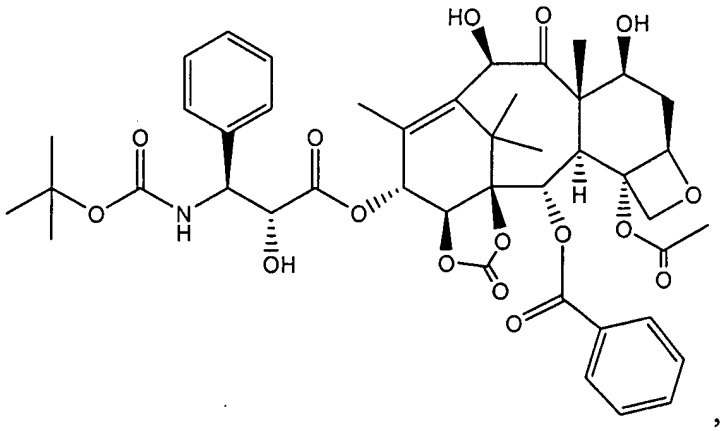

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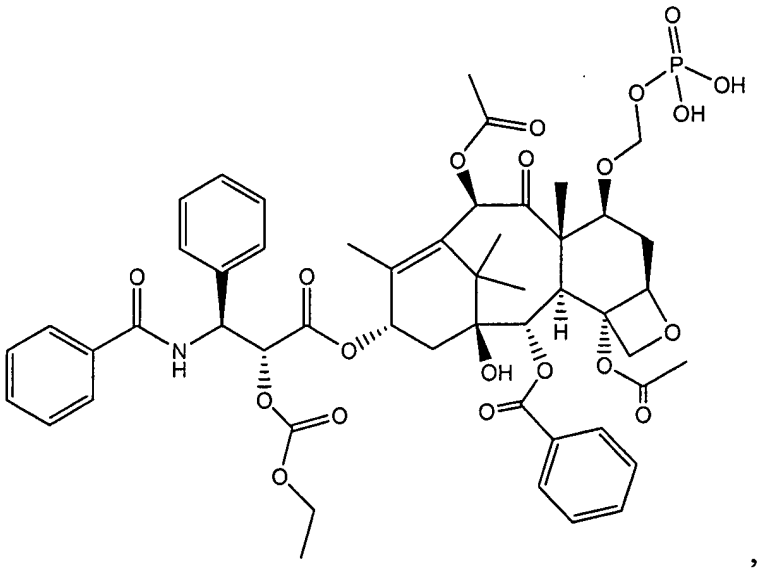

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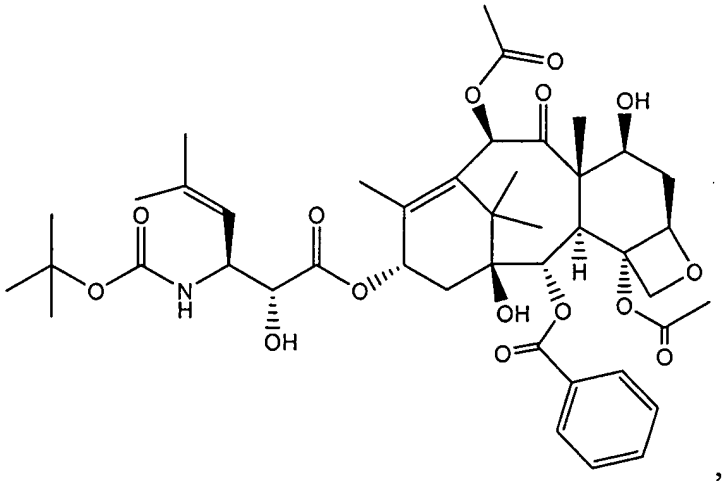

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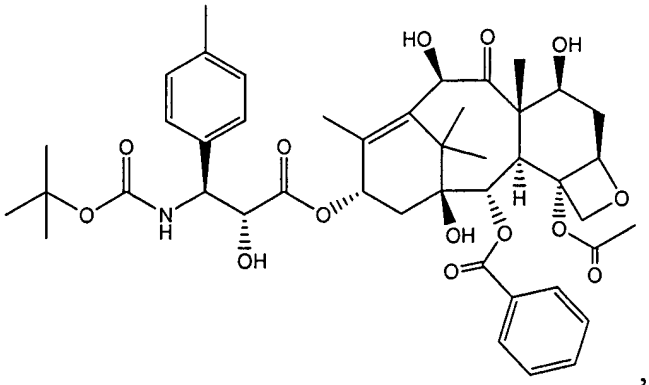

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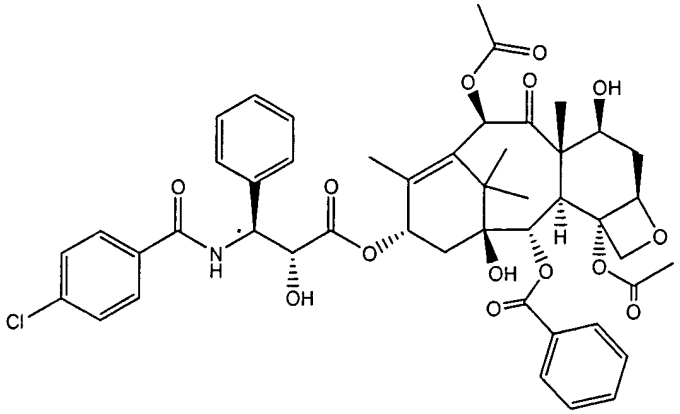


140. (New) The method of Claim 136 wherein the taxol analog is the copolymer of *N*-(2-hydroxypropyl)methacrylamide, methacryloylglycine-2-hydroxypropylamide and [2aR[2α,4β,4β,6β,9α(2R,3S),11β,12α,12α,12α]]-6,12b-diacetoxy-9-[3-benzamido-2-(methacryloyl-glycyl-L-phenylalanyl-L-leucylglycyloxy)-3-phenylpropionyloxy]-12-benzoyl oxy-4,11-dihydroxy-4a,8,13,13-tetramethyl-2a,3,4,4a,5,6,9,10,11,12,12a, 12b-dodecahydro-1H-7,11-methanocyclodeca[3,4]benz[1,2-b]oxet-5-one.

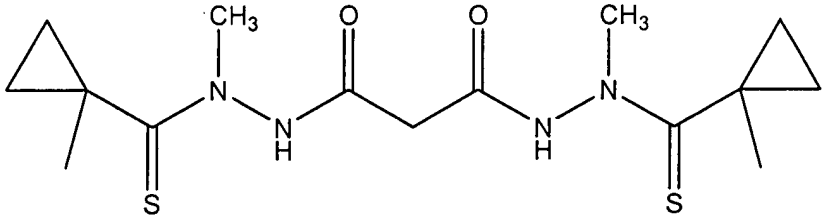
141. (New) The method of Claim 136 wherein the subject is administered taxol or taxotere.

142. (New) The method of Claim 136 wherein R_1 and R_2 are the same and R_3 and R_4 are the same.

143. (New) The method of Claim 142 wherein R_3 and R_4 are methyl.

144. (New) The method of Claim 143 wherein Y″ is $-CH_2-$.

145. (New) A method of treating a subject with cancer, said method comprising administering to the subject an effective amount of taxol or a taxol analog and an effective amount of a compound selected from:



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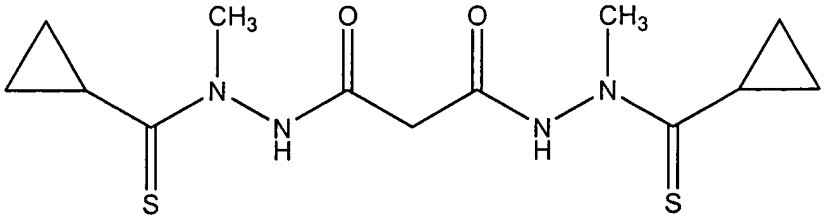
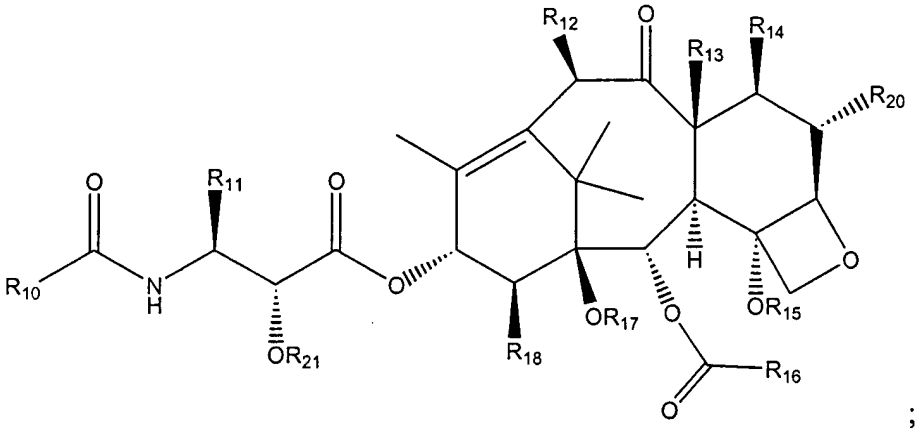


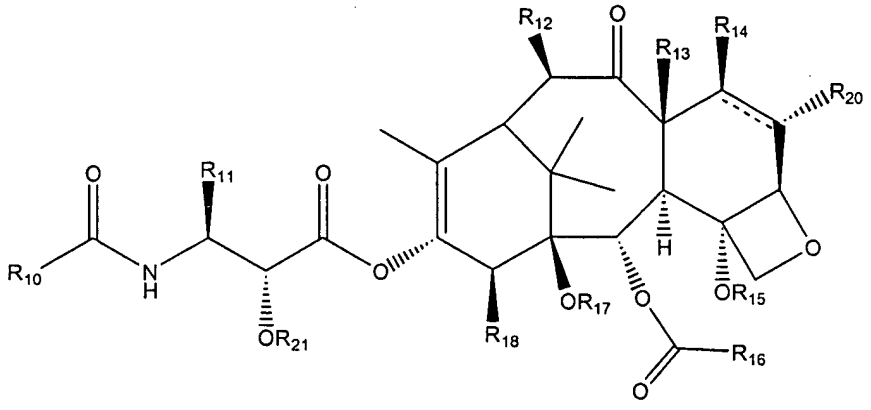
;

or a physiologically acceptable salt thereof.

146. (New) The method of Claim 145 wherein the taxol analog is represented by a structural formula selected from:



; and



wherein:

R_{10} is a lower alkyl group, a substituted lower alkyl group, a phenyl group, a substituted phenyl group, -SR_{19}, -NHR_{19} or -OR_{19};

R_{11} is a lower alkyl group, a substituted lower alkyl group, an aryl group or a substituted aryl group;

R_{12} is -H, -OH, lower alkyl, substituted lower alkyl, lower alkoxy, substituted lower alkoxy, -O-C(O)-(lower alkyl), -O-C(O)-(substituted lower alkyl), -O-CH_2-O-(lower alkyl) or -S-CH_2-O-(lower alkyl);

R_{13} is -H, -CH_3, or, taken together with R_{14}, is -CH_2-;

R_{14} is -H, -OH, lower alkoxy, -O-C(O)-(lower alkyl), substituted lower alkoxy, -O-C(O)-(substituted lower alkyl), -O-CH_2-O-P(O)$(OH)_2$, -O-CH_2-O-(lower alkyl), -O-CH_2-S-(lower alkyl) or, taken together with R_{20}, is a double bond;

R_{15} -H, lower acyl, lower alkyl, substituted lower alkyl, alkoxymethyl, alkthiomethyl, -OC(O)-O(lower alkyl), -OC(O)-O(substituted lower alkyl), -OC(O)-NH(lower alkyl) or -OC(O)-NH(substituted lower alkyl);

R_{16} is phenyl or substituted phenyl;

R_{17} is -H, lower acyl, substituted lower acyl, lower alkyl, substituted, lower alkyl, (lower alkoxy)methyl or (lower alkyl)thiomethyl;

R_{18} -H, -CH_3 or, taken together with R_{17} and the carbon atoms to which R_{17} and R_{18} are bonded, is a five or six membered a non-aromatic heterocyclic ring;

R_{19} is a lower alkyl group, a substituted lower alkyl group, a phenyl group, or a substituted phenyl group;

R_{20} is -H or a halogen; and

R_{21} is -H, lower alkyl, substituted lower alkyl, lower acyl or substituted lower acyl.

147. (New) The method of Claim 146 wherein:

R_{10} is phenyl, *tert*-butoxy, -S-CH_2-CH-$(CH_3)_2$, -S-$CH(CH_3)_3$, -S-$(CH_2)_3CH_3$, -O-$CH(CH_3)_3$, -NH-$CH(CH_3)_3$, -CH=$C(CH_3)_2$ or *para*-chlorophenyl;

R_{11} is phenyl, $(CH_3)_2CHCH_2$-, -2-furanyl, cyclopropyl or *para*-toluyl;

R_{12} is -H, -OH, CH_3CO- or -$(CH_2)_2$-*N*-morpholino;

R_{13} is methyl, or, R_{13} and R_{14}, taken together, are -CH_2-;

R_{14} is -H, -CH_2SCH_3 or -CH_2-O-P(O)$(OH)_2$;

R_{15} is CH_3CO-;

R_{16} is phenyl;

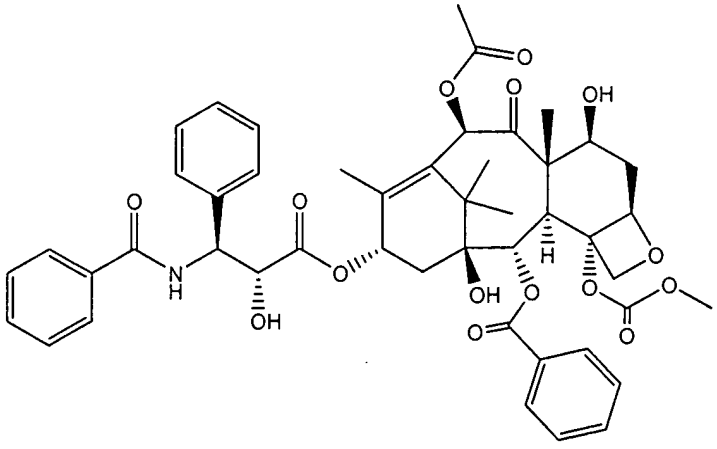
R_{17} -H, or, R_{17} and R_{18}, taken together, are -O-CO-O-;

R_{18} is -H;

R_{20} is -H or -F; and

R_{21} is -H, -C(O)-CHBr-$(CH_2)_{13}$-CH_3, -C(O)-$(CH_2)_{14}$-CH_3,
-C(O)-CH_2-CH(OH)-COOH, -C(O)-CH_2-O-C(O)-CH_2CH(NH_2)-$CONH_2$,
-C(O)-CH_2-O-$CH_2CH_2OCH_3$ or -C(O)-O-C(O)-CH_2CH_3.

148. (New) The method of Claim 145 wherein the taxol analog is selected from:



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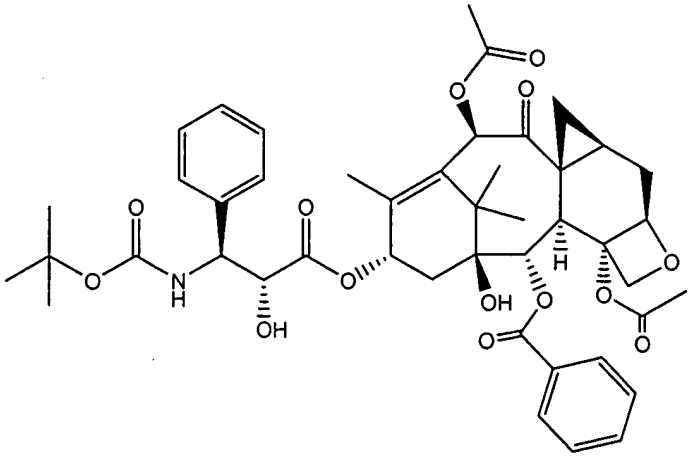

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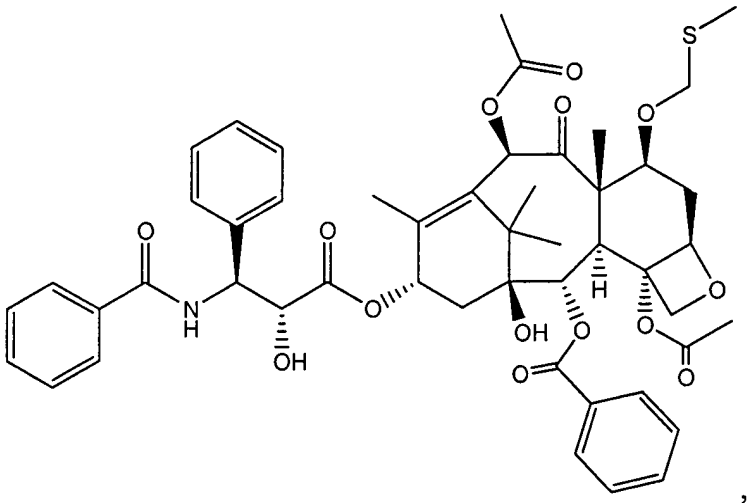

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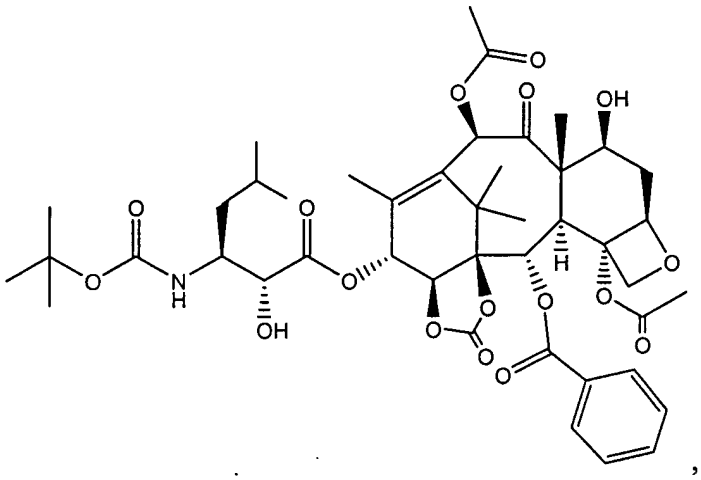

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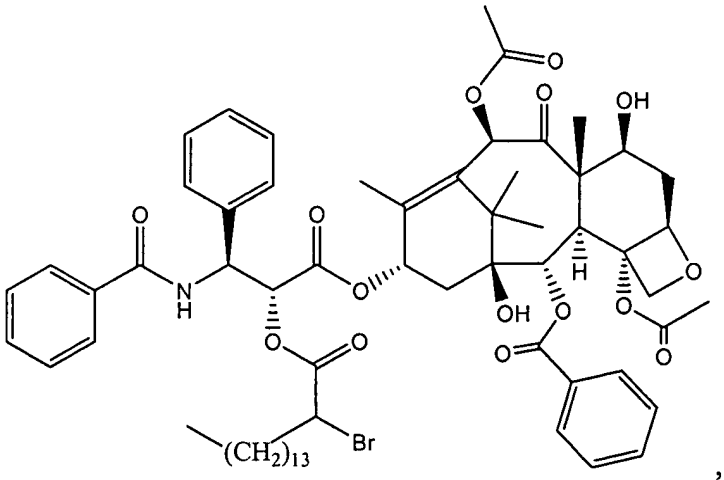

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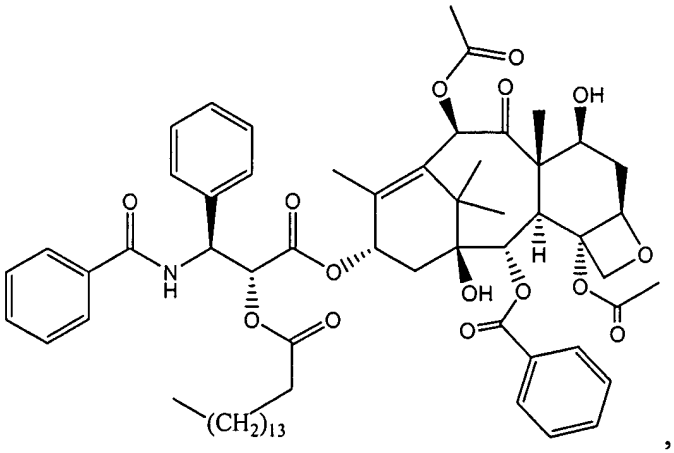
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(CH2)13

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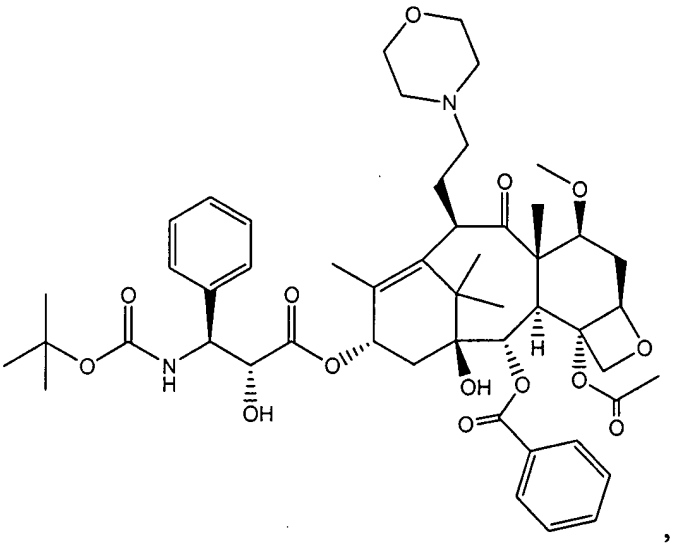
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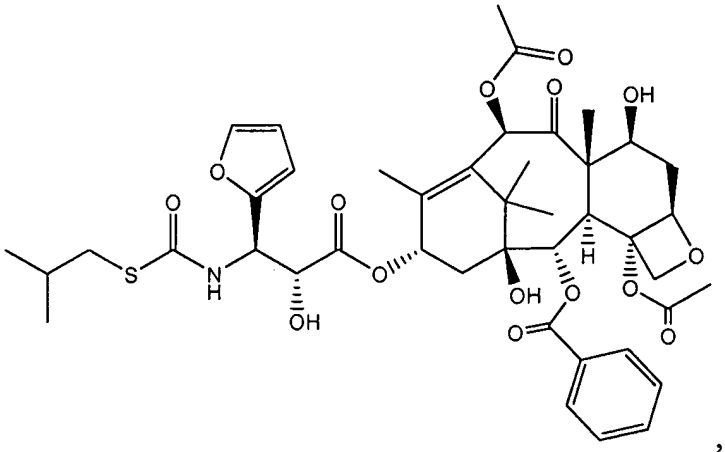
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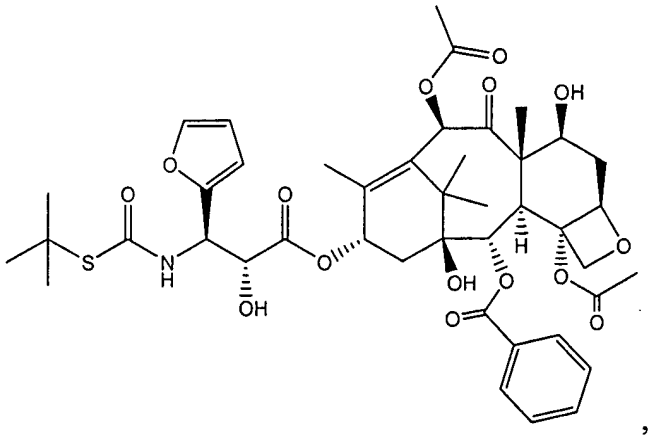

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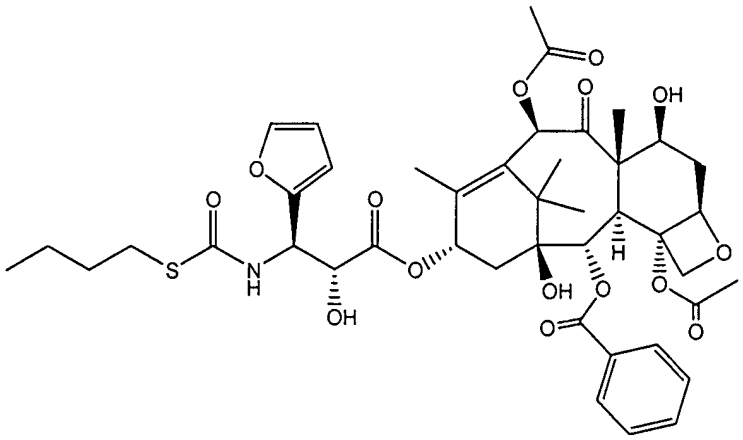

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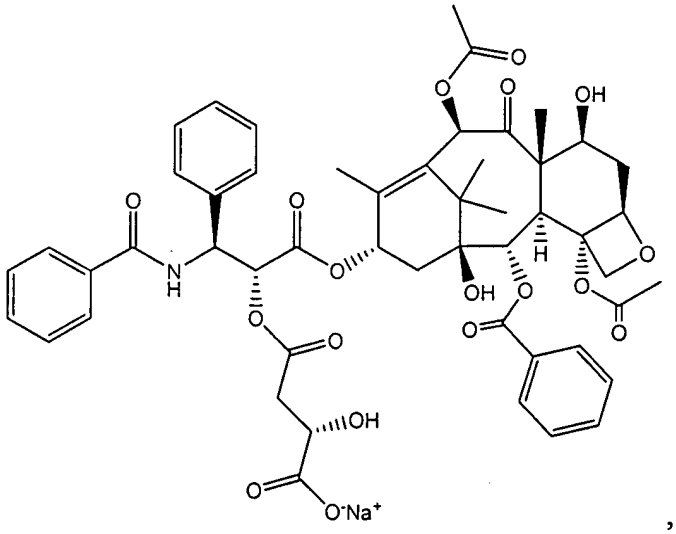

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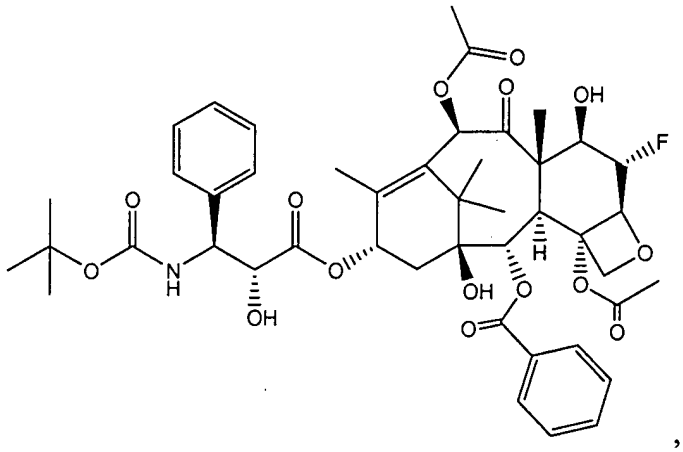

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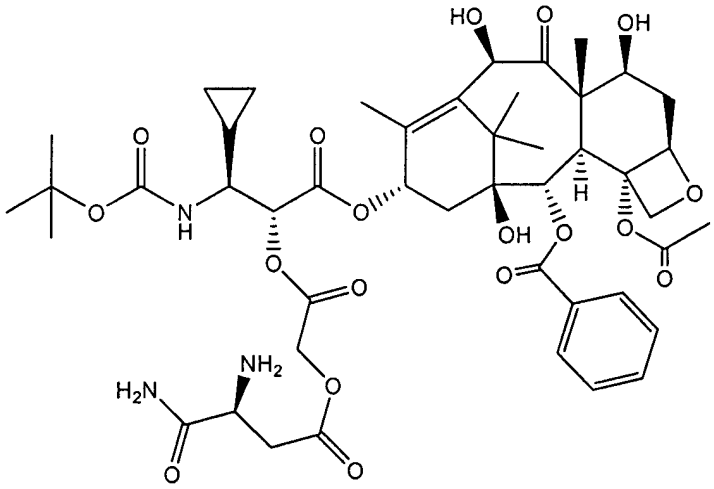

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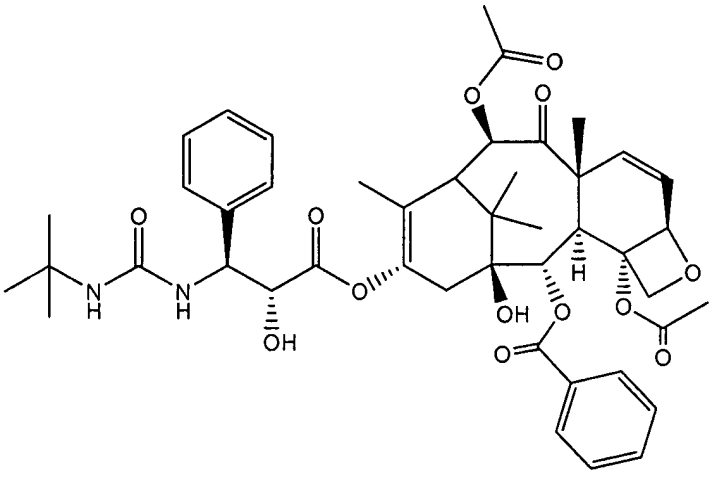

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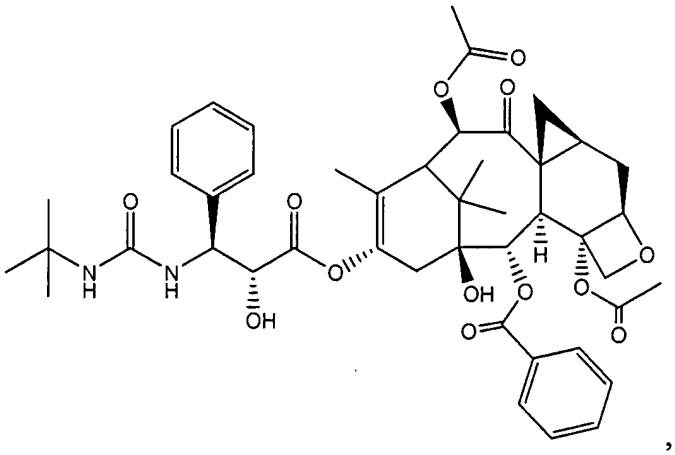

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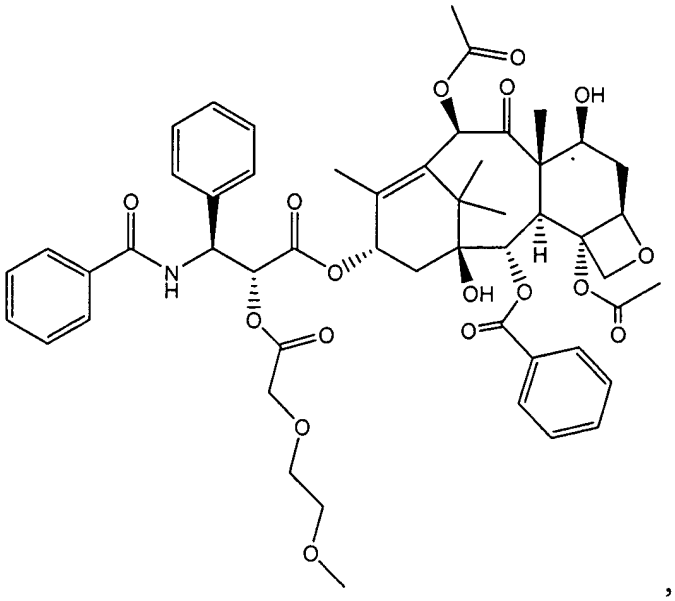

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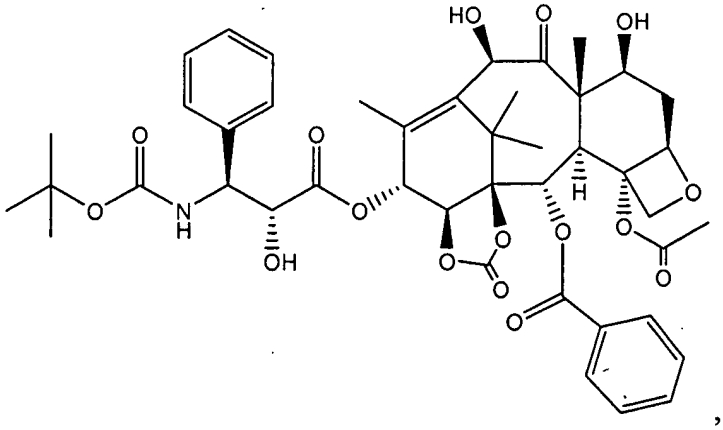

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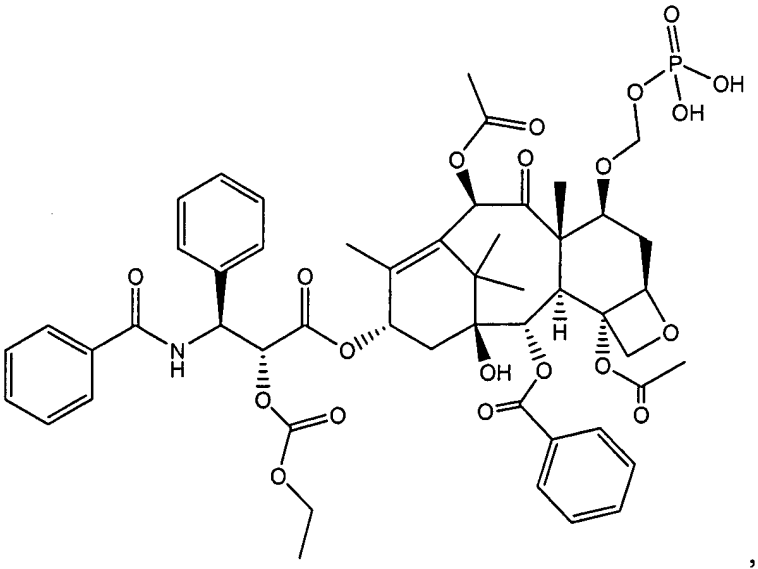

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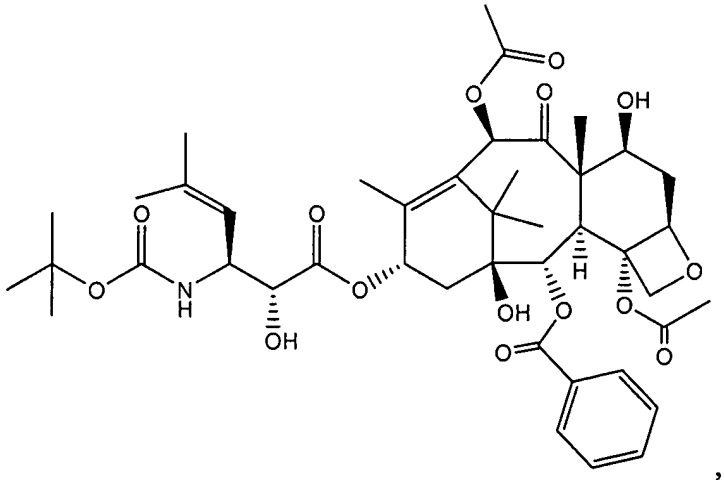

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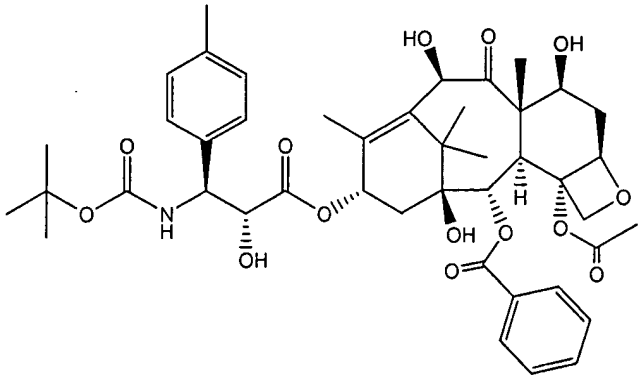

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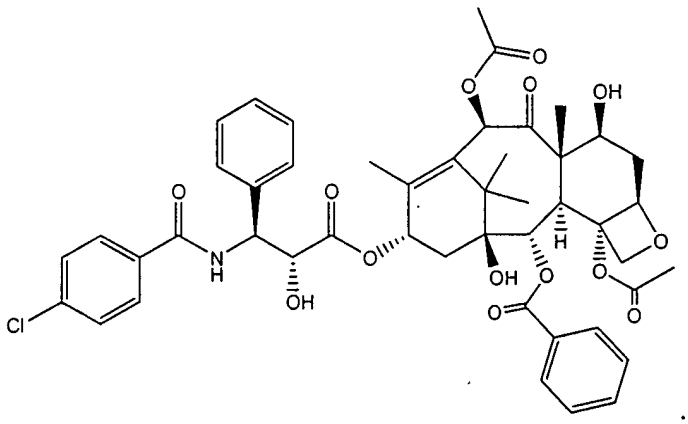

149. (New) The method of Claim 145 wherein the subject is administered taxol or taxotere.